



Air Force Research Laboratory|AFRL

Science and Technology for Tomorrow's Air and Space Force

Success Story

DR. MARK DRAPER WINS AIR FORCE RESEARCH AND DEVELOPMENT AWARD



Dr. Mark Draper, a major in the Air Force Reserves working with the Human Effectiveness Directorate, received the Air Force Research and Development Award for his pioneering work on unmanned air vehicle (UAV) ground control system interfaces. The award recognizes accomplishments of personnel working in the area of exploratory technology development or advanced technology development. Dr. Draper's selection for this award demonstrates that the directorate's technology development for UAVs combines cutting-edge science, advanced interface design, and warfighter responsiveness.



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Accomplishment

Dr. James Roche, Secretary of the Air Force, stated, “Unmanned aerospace vehicles are the hallmark of our future.” Dr. Draper ensures that current and future UAV operators will have the interfaces required to accomplish their mission. His work solidifies the wartime effectiveness of this new class of weapon system.

Background

During 2001-2002, Dr. Draper distinguished himself as UAV control/display research program manager while assigned to the directorate’s Crew System Interface Division. Dr. Draper developed solutions to improve Predator landing in turbulence and UAV operator situation awareness and mission performance.

For example, his sensor display north-up referencing concept improves crew tactical awareness and supports more rapid communication of potential target locations to the sensor operator. Dr. Draper conceived and developed the “Predator Interface Requirements Document,” conducted world-class experiments, and provided hard data on the effectiveness of his interface solutions, thereby taking his work far beyond today’s commonplace concept demonstrations.

Dr. Draper was appointed as advisor to the Predator Cockpit Working Group (CWG) and name-requested to support the Global Hawk CWG to ensure the latest in human engineering technology and UAV system human-machine interface research was provided to the Global Hawk Ground Segment Re-architecture Study. His use of the CWG process as a technology transition vehicle has been masterful. As such, warfighters, program offices, and industry are fully informed on the progress and payoffs for his interface enhancements.

Human Effectiveness
Awards and Recognition

Additional information

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